



Federal Communications Commission
Washington, D.C. 20554

July 23, 2007

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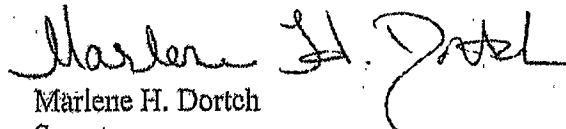
Re: Motion to Accept Filing as Timely
Filed in WC Docket No. 07-52

Dear Mr. Haney:

The Office of the Secretary has received your request for acceptance of the document filed by the Discovery Institute in the above-referenced proceeding as timely filed, due to technical difficulties with the Commission's Electronic Comment Filing System.

In accordance with 47 C.F.R. Section 0.231(i), I have reviewed your request and your assertions. After considering the relevant arguments, I have determined that these filings will be accepted as timely filed on July 16, 2007. If we can be of further assistance, please contact the Office of the Secretary.

Sincerely,


Marlene H. Dortch
Secretary

MHD/gt

cc: Wireline Competition Bureau

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

Broadband Industry Practices

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WC Docket No. 07-52

**COMMENTS OF HANCE HANEY
SENIOR FELLOW & DIRECTOR OF THE TECHNOLOGY & DEMOCRACY PROJECT
DISCOVERY INSTITUTE**

The comments in this proceeding¹ fail to paint a compelling justification for the Commission to subject broadband service providers to the uncertainties and burdens of a new regulatory regime; let alone proceed to issue a notice of proposed rulemaking.

There is no persuasive argument that the Commission lacks either the motivation or the ability to intervene in the broadband marketplace should it ever become necessary to prevent harmful anticompetitive behavior.

Although the market may not strike some observers as *perfectly* competitive, the available evidence shows that consumers do have the ability to bypass a broadband service which places unreasonable limitations on their access to the Internet. Moreover, comments show that broadband service providers likely have greater incentives to invest in expanded bandwidth than to rely on packet prioritization as a primary tool for managing Internet congestion.

Finally, no one can demonstrate that the prospect of additional regulation may not prohibit legitimate new business strategies nor that it isn't likely to create uncertainty which tends to inhibit needed investment in expanded bandwidth.

¹ *Broadband Industry Practices*, WC Docket No. 07-52, Notice of Inquiry, 22 FCC Rcd. 7894 (2007).

I. THERE IS NO CREDIBLE ASSERTION THAT BROADBAND PROVIDERS COULD ENGAGE IN HARMFUL ANTICOMPETITIVE BEHAVIOR WITH IMPUNITY

The key question in this proceeding is: If broadband providers were to engage in harmful anticompetitive behavior, would it be detectable and could the Commission intervene, if necessary? No one seriously disputes here the Commission's observation that it has the ability to adopt and enforce the net neutrality principles it announced in the Internet Policy Statement under Title I of the Communications Act.²

Although some parties profess uncertainty as to whether appropriate and timely relief would be available at a future date absent something more formal than the current Policy Statement,³ the Commission's ability to act expeditiously and decisively was plain for all to see when it approved a consent decree with Madison River Communications, LLC pursuant to its authority under Title I of the Communications Act, which authorizes the Commission to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions" (47 U.S.C. § 154(i).)

The CEO of Vonage Holdings Corp., who sought the Commission's assistance, was *pleased* with the resolution and how quickly it came, according to one interviewer.

"How often do you see the FCC in the position to be able to act in a few weeks?" Citron said. It showed clearly that blocking VoIP service violates FCC rules, he said. Vonage never filed a complaint against Madison River because it didn't have to push the FCC to take action, Citron said.⁴

Thus, this proceeding doesn't address a process failure; instead, it highlights that proscriptive regulation may not be necessary. As former Chairman Michael K. Powell noted in

² *Id.*, at 4-5.

³ See, e.g., *Comments of Open Internet Coalition* at 14 ("Mere principles, whose enforceability is unclear, are insufficient...") and *Comments of Google* at 39 ("the ban on blocking, impairing or degrading must be codified and made enforceable.")

⁴ See: "Vonage CEO slams VoIP blocking," *InfoWorld* (Mar. 8, 2005) available at http://www.infoworld.com/article/05/03/08/HNvonageceoslams_1.html.

the context of the *Madison River* outcome, “[i]n my view, the surest way to preserve ‘Net Freedom’ is to handle these issues in an enforcement context where hypothetical worriers give way to concrete facts and—as we have shown today—real solutions.”⁵

The Federal Trade Commission has also affirmed its own authority and expertise to intervene as necessary to protect content and application providers and consumers:⁶

The competitive issues raised in the debate over network neutrality regulation are not new to antitrust law, which is well-equipped to analyze potential conduct and business arrangements involving broadband Internet access

The FTC has been involved in the Internet access area for over a decade and will continue to be involved in the evolving area of broadband access. The FTC Act is sufficiently flexible to allow the FTC to enforce the antitrust and consumer protection laws in most industries, including those involving new and ever-changing technologies. The fundamental principles of antitrust and consumer protection law and economics that we have applied for years are as relevant to the broadband industry as they are to other industries in our economy.

Fundamentally, since there is no absence of available relief, there is no reason for the Commission to prejudge in the abstract which products or services broadband providers should and should not be able to attempt.

II. THE EVIDENCE SHOWS THE MARKET IS COMPETITIVE AND IS BECOMING INCREASINGLY SO

The Center for Democracy & Technology, among others, claim that the absence of robust competition justifies a packet nondiscrimination safeguard.

[F]or the foreseeable future, broadband competition will be limited to a very small number of entities in each local market. Even where a few rivals may compete vigorously on price or speed, the market may not provide a reliable check on all possible behaviors – particularly where a behavior gives network operators an attractive measure of control or an additional possible revenue source.⁷

⁵ Statement of FCC Chairman Michael K. Powell (Mar. 3, 2005) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-257175A1.pdf.

⁶ *Broadband Connectivity Competition Policy: A Federal Trade Commission Staff Report* (Jun. 27, 2007) at 8, 11 *available at* <http://www.ftc.gov/reports/broadband/v070000report.pdf>.

⁷ *Comments of the Center for Democracy & Technology* at 6.

The point is moot in light of the enforcement capabilities of the Commission and the FTC, not to mention the Antitrust Division. Setting that aside, the observation also overlooks the growing significance of alternative sources of broadband competition.

MuniWireless.com's June 2007 update showed that 385 cities and counties are in the process of deploying or planning municipal wireless networks, or have networks up and running.⁸ AT&T Wireless and T-Mobile operate thousands of Wi-Fi hotspots and AT&T is building a municipal Wi-Fi network in Springfield, Ill.⁹ Sprint Nextel is building a nationwide WiMAX network.¹⁰ And Google, in addition to helping San Francisco and other cities install municipal wireless networks, is deploying its own fiber-optic network. Google CEO Eric Schmidt has observed that "[o]ne of the neat things about the Internet bubble of the '90s was that people built all of this fiber, and now it's essentially free."¹¹ One analyst estimates that Google has "enough potential capacity to compete in wholesale telecommunications or as an Internet service provider."¹²

Verizon notes that no single broadband provider in the U.S. serves more than 22 percent of U.S. broadband subscribers or more than 3 percent of global subscribers ("Thus, no single broadband provider has the ability to displace online content that consumers want.")¹³

⁸ See: "Muniwireless.com 1 June 2007 list of US cities and regions" available at <http://www.muniwireless.com/reports/docs/June-1-2007summary.pdf>.

⁹ See: "AT&T to build municipal WiFi network," by Paul Taylor, *Financial Times* (Aug. 30, 2006) available at http://www.ft.com/cms/s/f6c17b0a-3870-11db-ae2c-0000779e2340_1_rssPage=81cea682-52a8-11da-8d05-0000779e2340.html.

¹⁰ See: "Sprint's Boundless Ambitions," by Roger O. Crockett, *Business Week* (Aug. 8, 2006) available at http://businessweek.com/technology/content/aug2006/tc20060808_244294.htm. See also: "Sprint Explores Options for WiMAX," by Amol Sharma and Dana Cimilluca *Wall Street Journal* (Jun. 14, 2007) available at <http://online.wsj.com/article/SB118177984718034661.html>.

¹¹ "As Google Challenges Viacom and Microsoft, Its CEO Feels Lucky," by Fred Vogelstein, *Wired Magazine* (Apr. 9, 2007) available at http://www.wired.com/techbiz/people/news/2007/04/mag_schmidt_qa?currentPage=all.

¹² "Google: You ain't seen nothin' yet," by Peter Nowak, *Financial Post* (Jun. 30, 2007) available at <http://www.canada.com/nationalpost/financialpost/story.html?id=odofa453-8a22-4dd0-b244-53f03146da8e&k=11216>.

¹³ Comments of Verizon and Verizon Wireless at 51.

Some parties discount intermodal offerings due to “differing requirements, service qualities and prices.”¹⁴ But perfect substitutability isn’t necessary. As long as consumers can bypass a particular broadband service that imposes unacceptable usage restrictions, the availability of the competitive offerings, such as they are, will act as a constraint on most impulses to limit what consumers can do on the Internet.

Some parties also contend that wireless broadband services aren’t a real source of competition since the two largest wireless broadband providers are affiliated with the two largest DSL providers.¹⁵ This argument seems to assume these providers will work to advantage their wireline offerings to the detriment of their wireless broadband offerings. But this reasoning ignores the highly competitive nature of the wireless market and the fact that wireless services are generally more profitable than wireline offerings.

III. IT IS UNDISPUTED THAT THE MARKET IS MOVING IN THE DIRECTION OF OPEN ACCESS IN THE ABSENCE OF REGULATION

Google has identified several factors suggesting that the market already provides powerful incentives – without additional regulation – for broadband providers to invest in more bandwidth rather than rely primarily on packet prioritization to manage Internet congestion.¹⁶

First, Google argues that packet prioritization (*i.e.*, Quality of Service) is a “poor proxy for additional bandwidth.”

[T]he engineers at Internet2 conducted a detailed technical analysis of QoS in broadband networks. Their conclusion is that QoS is a relatively poor proxy for additional bandwidth:

In most bandwidth markets important to network-based research, it is cheaper to buy more capacity and to provide everybody with excellent service than it is to mess with QoS. In those few places where network upgrades are not practical, QoS deployment is usually even harder (due to the high cost of QoS-capable routers and clueful network engineers).

¹⁴ *Comments of National Association of State Utility Consumer Advocates* at 28-29.

¹⁵ *Comments of Open Internet Coalition* at 7-8.

¹⁶ *Comments of Google* at 26-29.

Second, Google argues that packet prioritization doesn't have a material impact unless it can be activated across a network, which requires cooperation among network operators. This is something network operators likely haven't tried at all (if they have, they certainly haven't been successful).

QoS may not even provide the supposed benefits that its supporters suggest. In order for prioritization to have any material impact on a stream of Internet traffic, it must be activated all the way through the Internet, from the content provider's side of the Internet "cloud" through the backbone networks and finally to the end user. Because any one network operator does not own and control every potential route through the public Internet, numerous multi-party business agreements and/or uniform standards would be required among all Internet service providers to achieve end-to-end QoS. Such arrangements have eluded the parties to date. For example, British Telecom apparently will not employ a QoS-based scheme in its network.

Third, Google argues that network providers have higher incentives to invest in an open Internet.

There are both academic and real-world illustrations of how an open Internet actually creates enhanced incentives to invest in broadband facilities. For example, a recent econometric study at the University of Florida found that the cable and telephone companies providing broadband services are more likely to further develop their infrastructure, resulting in higher data speeds, if they do not charge Web-based content companies for preferential treatment. As the authors concluded, based on detailed economic analysis, "the incentive for the broadband service provider to expand under net neutrality is unambiguously higher than under the no net neutrality regime." Obviously this outcome "goes against the assertion of the broadband service providers that under net neutrality, they have limited incentive to expand."

Fourth, video – not packet prioritization – will pay for network upgrades.

[T]hose same broadband providers arguing to policymakers that paid QoS from Internet and technology companies will help finance broadband build-outs, have been telling a very different story to Wall Street investors. There, the providers present well-documented claims that fiber facilities actually pay for themselves, and that proprietary video services – not prioritization-based fees – will be the primary revenue generator for fiber networks.

Despite acknowledging the presence these positive factors, Google and others unfortunately conclude that they create a justification for more regulation. Google and others

flippantly observe that if broadband providers aren't going to discriminate anyway, "they will not be harmed by compliance requirements with actual remedies."¹⁷ This is wishful thinking. The fact is that regulation usually leads to unintended consequences.

IV. THE ADDITION OF A "NONDISCRIMINATION" PRINCIPLE LIKELY WOULD HAVE UNINTENDED CONSEQUENCES

Google asks the Commission to prohibit broadband providers from charging content providers from terminating traffic to a particular end user (although Google would allow broadband providers to offer consumers "tiered pricing arrangements, based on the use of bandwidth, latency requirements, or other objective measures").¹⁸

First, Google's proposal could inadvertently prohibit innovative business strategies that benefit consumers. As Verizon and Verizon Wireless have noted,

In the absence of restrictions, new business models that free the end user from having to pay the entire cost of service may develop. Thus network providers may desire to try business models that recoup a portion of their network investments by selling advertising, as occurs in the newspaper, radio, and broadcast television industries. The FCC should encourage these types of innovation and experimentation, not preempt them with anticipatory regulation.¹⁹

A pure non-discrimination requirement would outlaw the partnership, bundling and pricing strategies that are the basis for all advertising efforts. The government shouldn't ensure that online advertising revenues flow into the pockets of content providers; rather it should allow the market to determine the best way to allocate online advertising revenues, which amounted to \$16.9 billion in 2006 – a new annual record exceeding 2005 by 35%.²⁰

Google CEO Eric Schmidt among others have acknowledged the importance of making broadband affordable:

¹⁷ *Id.*, at 39.

¹⁸ *Id.*, at 24-25.

¹⁹ *Comments of Verizon and Verizon Wireless* at 41-43.

²⁰ "Internet Advertising Revenues Grow 35% in '06, Hitting a Record Close to \$17 Billion," Report of the Interactive Advertising Bureau and Pricewaterhouse Coopers LLP (May 23, 2007) available at http://www.iab.net/news/pr_2007_05_23.asp.

Remember, one of the critical things in our model is that having inexpensive or, ideally, free access to broadband is a good thing. Especially if it's somebody else who's going to subsidize that using their economics, we think it's great. And the more broadband we can get globally, the better. It's better for the world; it's better for our advertisers; it's better for Google.²¹

Indeed, Schmidt has observed that "[y]our mobile phone should be free. It just makes sense that subsidies should increase" as advertising rises on mobile phones.²² It isn't clear that a pure nondiscrimination principle would allow wireless broadband providers to provide these services.

Second, Google's proposal could chill current broadband investment. Regulatory uncertainty is a factor that influences investment patterns. Even if competitive pressure convinces a broadband provider it must invest to survive, the money has to come from somewhere.

It's not the regional Bells who decide [investment in broadband networks]. It's Wall Street who decides []. Wall Street will decide whether they're willing to support the stocks of the regional Bells as they make these risky and far-reaching investments of scores of billions of dollars in deploying fiber to homes and neighborhoods. If Wall Street says no, they won't be able to do it; it doesn't matter whether Google says "yes" and Microsoft says "yes" and eBay claps its hands — it won't happen if conditions are created where these investments won't yield a profit."

according to Discovery Institute Senior Fellow George Gilder.²³

An influential Wall Street analyst recently emphasized before a Congressional committee that Verizon and AT&T already face significant investor skepticism:

The capital markets see a bleak future for network operators. Cable stocks have suffered five years of valuation declines relative to the broader market. Telecommunications firms like Verizon and AT&T have been given similar treatment. Comcast's stock is punished every time the company's management even mentions the words "capital investment....

²¹ See: "Text of Wired's Interview with Google CEO Eric Schmidt," (Apr. 9, 2007) available at http://www.wired.com/techbiz/people/news/2007/04/mag_schmidt_trans?currentPage=all.

²² "Google CEO sees free cell phone service," *Reuters* (Nov. 13, 2006) available at <http://www.msnbc.msn.com/id/15700344/>.

²³ *George Gilder Podcast on Net Neutrality* (Jun. 7, 2006) available at http://www.disco-tech.org/2006/06/george_gilder_podcast_on_net_n.html.

Wall Street harbors grave doubts about the ability to earn a return on network investments. Excessive competition and an uncertain regulatory environment are dampening capital formation and slowing the pace of investment. That investment is critical though because despite a great deal of arm waving from visionaries, our telecommunications infrastructure today is woefully unprepared for the widespread delivery of advanced services, especially video, over the Internet....

Mandated net neutrality would further sour Wall Street's taste for broadband infrastructure investments, making it increasingly difficult to sustain the necessary capital returns. It would likely mean that consumers alone would be required to foot the entire bill for whatever network investments do get made. Conversely, from a Wall Street perspective, allowing a multiplicity of payers, that is, advertisers, or web services providers, to support network investments would greatly bolster the business case and would offer the prospect of better returns and more consumer choice in the end.²⁴

Discovery Institute Senior Fellow Bret Swanson recently elaborated on the implications of video and other advanced services such as noted above, and his insights underscore the importance of reducing regulatory uncertainty which inhibits investment:

Each year the original content on the world's radio, cable and broadcast television channels adds up to about 75 petabytes of data -- or, 10 to the 15th power. If current estimates are correct, the two-year-old YouTube streams that much data in about *three months*. But a shift to high-definition video clips by YouTube users would flood the Internet with enough data to more than double the traffic of the entire cybersphere. And YouTube is just one company with one application that is itself only in its infancy. Given the growth of video cameras around the world, we could soon produce five exabytes of amateur video annually. Upgrades to high-definition will in time increase that number by another order of magnitude to some 50 exabytes or more, or 10 times the Internet's current yearly traffic.

We will increasingly share these videos with the world. And even if we do not share them, we will back them up at remote data storage facilities. I just began using a service called Mozy that each night at 3 a.m. automatically scans and backs up the gigabytes worth of documents and photos on my PCs. My home computers are now mirrored at a data center in Utah. One way or another, these videos will thus traverse the net at least once, and possibly, in the case of a YouTube hit, hundreds of thousands of times.

There's more. Advances in digital medical imaging will soon slice your brain 1,024 ways with resolution of less than half a millimeter and produce multigigabyte files. A technician puts your anatomy on a DVD and you send your body onto the Internet for analysis by a radiologist in Mumbai. You skip doctor visits, stay home and have him come to you with a remote video diagnosis. Add another 10 exabytes or more of Internet data traffic. Then there's what George Gilder calls the "global sensorium," the coming

²⁴ Testimony of Craig E. Moffett, Vice President and Senior Analyst, Sanford C. Bernstein and Co., LLP, before the Committee on Commerce, Science & Transportation, United States Senate (Mar. 14, 2006) available at <http://www.commerce.senate.gov/hearings/witnesslist.cfm?id=1712>.

network of digital surveillance cameras, RFID tags and other sensors, sprawling across every home, highway, hybrid, high-rise, high-school, etc. All this data will be collected, analyzed and transmitted. Oh, and how about video conferencing? Each year we generate some 20 exabytes of data via telephone. As these audio conversations gradually shift to video, putting further severe strains on the network, we could multiply the 20 exabytes by a factor of 100 or more.

Today's networks are not remotely prepared to handle this exaflood.

Wall Street will finance new telco and cable fiber optic projects, but only with some reasonable hope of a profit. And that is what net neutrality could squelch. Google, for example, has guaranteed \$900 million in advertising revenue to MySpace and paid Dell \$1 billion to install Google search boxes on its computers; YouTube partnered with Verizon Wireless; MySpace signed its own content deal with Cingular. But these kinds of preferential partnerships, where content and conduit are integrated to varying degrees -- and which are ubiquitous in almost every industry -- could be outlawed under net neutrality.²⁵

CONCLUSION

Proponents of net neutrality regulation are inviting the Commission to entangle itself in abstract disagreements. Rather than commit its valuable time and resources to gratifying the curiosity of deep-pocketed corporations seeking competitive advantages through regulation, the Commission should confine itself in the absence of injury and actual controversy to a strictly passive role.

The Commission would subject broadband service providers to uncertainties and unnecessary burdens were it to try to pacify proponents of net neutrality regulation by opening a new field for battle through the issuance of a notice of proposed rulemaking. Another battle will merely delay the ability of broadband service providers to experiment with new and possibly innovative business strategies and to attract the capital necessary to increase bandwidth.

This proceeding demonstrates, as if that were necessary, that the Commission has both the motivation and the ability to intervene in the broadband marketplace should it ever become necessary to prevent harmful anticompetitive behavior.

²⁵ "The Coming Exaflood," by Bret Swanson, *Wall Street Journal* (Jan. 20, 2007) available at <http://online.wsj.com/article/SB116925820512582318.html>.

The market is sufficiently competitive insofar as most consumers presently have the ability to bypass a broadband service which may place unreasonable limitations on their access to the Internet. And, as the comments show, broadband service providers likely have greater incentives to invest in expanded bandwidth than to rely on packet prioritization as a primary tool for managing Internet congestion.

Finally, no one can demonstrate that the prospect of additional regulation may not prohibit legitimate new business strategies nor that it isn't likely to create uncertainty which tends to inhibit needed investment in expanded bandwidth.

Respectfully submitted,

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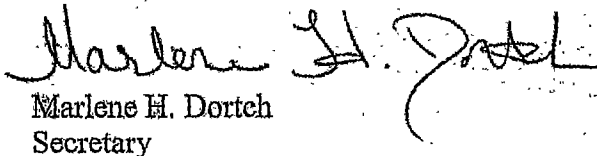
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